

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-35, 37-38, and 40-46 are pending in the application, with claims 1, 9, 17, 23, 31, 35, and 38 being the independent claims. Claims 36 and 39 are sought to be canceled without prejudice to or disclaimer of the subject matter therein. Claims 23-30, 35, 37-38, 44-46 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Claims

The Office Action objects to claims 23-30 and 45-46 as allegedly having no support in the specification. Applicants respectfully traverse the objection.

Page 2 of the Office Action objects to claims 23-30 and 45-46 as allegedly lacking support in the specification for such media. Applicants respectfully disagree. The specification supports this recitation without change. For example, paragraph [0068] of the present specification recites, in part, "[s]uch software can be disposed in any known computer usable medium including semiconductor, magnetic disk, optical disk (e.g. CD-ROM, DVD-ROM, etc.)[" It is indisputable that those having skill in the relevant art would recognize "semiconductor, magnetic disk, optical disk (e.g. CD-ROM, DVD-ROM, etc.)" as examples of a "computer readable storage medium." Applicants respectfully submit any contrary assertion lacks any serious foundation. Indeed, the recommendation in the Office Action to amend the specification to read, "[s]uch software can be disposed in

any known computer usable medium including computer readable storage medium such as semiconductor, magnetic disk, optical disk (e.g. CD-ROM, DVD-ROM, etc.)...[.]" mandates this very conclusion. That is, to make the recommendation, the Examiner must have clearly understood that "semiconductor, magnetic disk, optical disk (e.g. CD-ROM, DVD-ROM, etc.)" are each examples of a "computer readable storage medium."

In essence, then, the objection amounts to nothing more than requiring Applicants to use the exact words from the specification in the claims. This requirement is contrary to well-established law. Simply stated, there is no requirement that the language of the claims appear *ipsis verbis* in the specification. *Ex Parte Holt*, 19 U.S.P.Q. 2d 1211 (1991) (restating that "it is well established that the invention claimed need not be described *ipsis verbis* in order to satisfy the disclosure requirement of § 112"); MPEP § 2163(II)(A)(3)(a) (If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. *See, e.g.*, *Vas-Cath*, 935 F.2d at 1563, 19 U.S.P.Q. 2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 U.S.P.Q. 391, 395 (CCPA 1972) (stating "the description need not be in *ipsis verbis* [i.e., "in the same words"] to be sufficient") (Emphasis added).

In an effort to expedite prosecution with respect to this issue, Applicants again state the term "computer readable storage medium" found in the claims of the present application means any known computer readable storage medium including "semiconductor, magnetic disk, optical disk (e.g. CD-ROM, DVD-ROM, etc.)" but does not include computer usable transmission media.

In view of the foregoing, Applicants submit that is unnecessary to amend the specification as suggested by the Examiner and maintain that the present specification

sufficiently supports the language of claims 23-30 and 45-46. Applicants respectfully request that the Examiner reconsider and withdraw the present objection to the claims.

Rejections under 35 U.S.C. § 103

Numbered paragraph 2 on page 3 of the office Action rejects claims 1-4, 7-12, 15-20, 23-26, 29-41, 43, and 45-46 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,430,674 to Trivedi ("Trivedi") in view of U.S. Patent No. 6,405,303 to Miller *et al.* ("Miller"). For at least the following reasons, Applicants respectfully request the Examiner reconsider and withdraw the rejection.

Claims 36 and 39 have been canceled without prejudice or disclaimer thereby rendering the rejection thereto moot.

In the Office Action, the Examiner contends the asserted combination of the Trivedi and Miller renders the rejected claims obvious because Miller discloses "expanding the pipeline by duplicating and decode and execution units in order to operate in a parallel fashion." Combining Miller's duplicated decode and execution units, the Examiner concludes "[i]t would have been obvious at the time of the invention for one of ordinary skill in the art to take the processing system of Trivedi and incorporate the improved parallelization of Miller by duplicating at least the decode units." Applicants respectfully disagree. While parallel operation may be one goal, the Examiner's conclusion ignores other important goals in processor design including simplifying circuit design, minimizing power consumption and minimizing component footprint, each of which would likely be complicated by the proposed combination. Moreover, technical difficulties will surely arise with duplication of components required by the proposed combination. For example, problems associated with duplicating components that must function without interfering with one another are likely to

arise in the proposed combination. Yet, the Examiner makes no mention of these issues. Consequently, Applicants respectfully submit that without addressing at least these issues the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 1-4, 7-12, 15-20, 23-26, 29-41, 43, and 45-46.

Moreover, even assuming *arguendo* that the Examiner's combination of Trivedi and Miller is proper, then for at least the following additional reasons, Applicants respectfully assert the proposed combination does not render the pending claims obvious.

Claim 1 recites, in part, "a *first recoder to map an instruction from one encoded state to another encoded state*" and "a *second recoder to map an instruction from one encoded state to another encoded state*, the second recoder coupled to the first recoder." (Emphasis added). Thus, claim 1 requires at least two recoders, each of which maps an instruction from one encoded state to another encoded state. Claim 1 likewise recites, in part, "wherein the *first recoder passes information ... to the second recoder*, and the *second recoder recodes* a second instruction ... *using the passed information*["."] (Emphasis added).

As explained in paragraph 3 of the Office Action, the Examiner equates the first recoder to item 306 in Figure 3 of Trivedi. As Applicants explained in the remarks in their prior "Amendment and Reply Under 37 C.F.R. § 1.114," filed October 17, 2008 ("Prior Response"), item 306 of Figure 3 in Trivedi is not a recoder, but a detector. Detector 306 "can detect the presence of a mode switch instruction 212 in the front end 302b." (Trivedi at 6:47-49). When detector 306 detects a switch instruction, detector 306 generates a speculative wake-up signal. (*Id.* at 6:50-51.) As explained in their Prior Response, Applicants respectfully assert that Trivedi does not disclose that the detector 306 "maps an

instruction from one encoded state to another encoded state" as recited for the first recorder in claim 1.

Applicants respectfully submit the addition of Miller does not overcome this deficiency of Trivedi. First, the addition of Miller merely duplicates the decode stage of Trivedi including the detector. However, such duplication does not provide the detector with the ability to "map an instruction from a first encoded state to a second encoded state" as recited for the first recorder recited in claim 1.

Second, if the Examiner intended that a duplicated translator 302c be the first recorder, this still does not render the claims obvious. As recited in claim 1, the first recorder "passed information regarding a first instruction ... to the second recorder." As further recited in claim 1, the second recorder uses "the passed information to form a recoded instruction belonging to a second instruction set architecture." Applicants respectfully assert that neither Trivedi nor Miller, whether taken alone or in combination, teach or suggest such information passing between duplicated translators 302c.

In view of the foregoing, Applicants respectfully assert that neither Trivedi nor Miller, whether taken alone or in combination, teach or suggest the combination of features of claim 1. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claim 1.

Each of claims 9, 17, and 23 recite "a first recorder to map an instruction from one encoded state to another encoded state" and claims 9 and 23 recite "a second recorder to map an instruction from one encoded state to another encoded state, the second recorder coupled to the first recorder." Claim 17 recites, "a second recorder that recodes." As explained above with respect to claim 1, Applicants respectfully assert that neither Trivedi nor Miller, whether taken alone or in combination, teach or suggest both "a first recorder" and "a second recorder"

as recited in claims 9, 17, and 23. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 9, 17, and 23.

Claim 31 recites, in part

fetching an expand instruction belonging to a first instruction set architecture *and an expandable instruction* belonging to the first instruction set architecture;
dispatching the expand instruction and the expandable instruction;
generating at least one information bit based on the expand instruction; and
recoding the expandable instruction using the at least one information bit generated *to form a recoded instruction* belonging to a second instruction set architecture.

(Emphasis added).

Applicants respectfully submit that the proposed combination does not disclose at least these features recited in claim 31. The cited portion of Trivedi, column 4, lines 17-33 and 34-42 at best describes translating an instruction from one format to another. However, Applicants respectfully assert that such translation does not teach or suggest features of claim 31 set forth above. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claim 31.

Claim 35 recites, in part, "dispatching the first instruction to a *first recoder that maps an instruction from one encoded state to another encoded state* and the second instruction to a second recoder that maps an instruction from one encoded state to another encoded state" and "wherein the recoding of the second instruction is performed *using information from the first recoder.*" (Emphasis added.) For reasons analogous to those provided above with respect to claim 1, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claim 35.

Claim 38 recites, in part, "a plurality of recoders that operate in parallel ... wherein one of the recoders recodes one instruction using information from another recoder." As

explained above, Applicants respectfully assert that the combination of Trivedi and Miller does not disclose ***a recoder that recodes one instruction using information from another recoder*** as recited in claim 38. (Emphasis added.) Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claim 38 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claims 2-4 and 7-8 are dependent on independent claim 1. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 2-4 and 7-8 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claims 10-12 and 15-16 are dependent on independent claim 9. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 10-12 and 15-16 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claims 18-20 are dependent on independent claim 17. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 18-20 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claims 24-26 and 29-30 are dependent on independent claim 23. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 24-26 and 29-30 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claims 32-34 are dependent on independent claim 31. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 32-34 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claim 37 is dependent on independent claim 35. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claim 37 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

Claims 40-41, 43, and 45-46 are dependent on independent claim 38. Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 40-41, 43, and 44-46 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

For at least the foregoing reasons, Applicants respectfully request the Examiner reconsider and withdraw the rejections of claims 1-4, 7-12, 15-20, 23-26, 29-35, 37-38, 40-41, 43, and 45-46 under 35 U.S.C. § 103(a) set forth on page 3 of the Office Action.

On page 13 of the Office Action, claims 5, 6, 13, 14, 21, 22, 27, 28, 42, and 44 under 35 U.S.C. § 103(a) were rejected as allegedly being upatentable over the combination of Trivedi in view of Miller and in further view of Common Art. For at least the following reasons, Applicants respectfully request the Examiner reconsider and withdraw the rejection.

Claims 5, 6, 13, 14, 21, 22, 27, 28, 42, and 44 are dependent on independent claims 1, 9, 17, 23, 31, 35, and 38 respectively and since neither Trivedi nor Miller, whether taken alone or in combination, teach or suggest all of the elements of the independent claims 1, 9, 17, 23, 31, 35, and 38, it also does not teach or suggest all of the elements of dependent claims 5, 6, 13, 14, 21, 22, 27, 28, 42, and 44. Applicants respectfully submit the Common Art does not overcome the deficiencies of the combination of Trivedi in view of Miller.

For at least these reasons, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections be removed from claims 5, 6, 13, 14, 21, 22, 27, 28, 42, and 44 and that these claims be allowed.

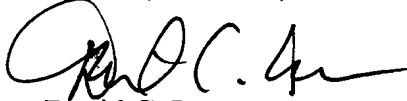
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



David C. Isaacson
Attorney for Applicants
Registration No. 38,500

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600